Panduit Pre-Configured Physical Infrastructures for Cisco® UCS, Nexus, and Catalyst Platforms

PANDUIT®

building a smarter, unified business foundation

Connect. Manage. Automate.

Panduit's Unified Physical Infrastructure℠ (UPI): a Guiding Approach

A unified approach to physical and logical systems architecture is imperative for solutions to fully address the need for availability, agility, integration, and security. Panduit has developed the industry's most comprehensive and holistic approach to a Unified Physical Infrastructure and can help enterprises align, converge, and optimize critical systems – communication, computing, control, power, and security – to build a smarter, unified business foundation.

Mitigate Risk – Efficient physical infrastructure design, deployment, and management enables seamless integration across the physical and logical infrastructure to reduce risks which can occur throughout core systems.

Lower Cost – Panduit physical infrastructure solutions drive financial advantages by helping to lower energy and occupancy costs, enhance space savings, and reduce downtime to secure a competitive advantage.

Increase Agility – A high level of integration within the physical infrastructure and the accompanying logical infrastructure enables flexibility and improved business agility.

Enhance Sustainability – UPI based solution offerings enable organizations to meet sustainability goals by driving resource and energy efficiencies across the physical infrastructure.

Unified Physical Infrastructure

Faster Implementation, Simple Specification

As more businesses are adopting consolidation, virtualization, and automation of networking assets to drive business results, the physical infrastructures needed to support the technologies are increasingly becoming more complicated and take longer to implement.

Panduit and Cisco have created a data center solution that integrates the physical infrastructure systems needed in an optimized data center deployment. Panduit Pre-Configured Physical Infrastructures arrive at partner or end user sites ready to be deployed, reducing the time required for planning, designing, procurement, and installation, as well as the cost of operations.

As with any logical architecture design, true data center optimization relies on a Unified Physical Infrastructure℠ (UPI)-based approach in order to successfully address the challenges around power, cooling, space utilization, transport speed, and overall performance. Pre-Configured Physical Infrastructure offerings are based on proven reference architectures that map the logical to physical layer. These solutions are pre-engineered, tested, and validated to lower the infrastructure speed to deployment, enhance thermal performance, decrease energy usage, and reduce total cost of ownership (TCO), resulting in reduced risk and increased sustainability.

Cisco offers proven, end-to-end network and Unified Computing Solutions as part of their Data Center 3.0 strategy, which extends the entire network infrastructure, from the backbone to every endpoint:

- The Cisco® Nexus 7010 is the first in the next generation of data center-class switch platforms that provides modularity, high availability, and integrated resilience specifically for mission-critical data centers
- The Cisco® Unified Computing System (UCS) unites compute, network, storage access, and virtualization resources in a single energy efficient system
- As the premier intelligent, multilayer modular Cisco switch, the Catalyst 6509 delivers secure, converged, end-to-end services, from the wiring closet to the core network, the data center, and the WAN edge
- The Cisco® Nexus 7009 Switch platform delivers high performance in a compact 14 RU form factor optimized for deployment from data center to borderless network environments

Panduit Pre-Configured Physical Infrastructures for Cisco® Nexus 7009, Nexus 7010, UCS, and Catalyst 6509 platforms increase business agility through high-performance, flexible, scalable, and reliable data center design, incorporating:

- Network design best practices
- Physical layer infrastructure best practices
- Power, cooling, and space considerations
- Data center standards

Optimized for Power, Cooling, and Performance

As a leading physical infrastructure partner for Cisco, Panduit works with Cisco engineering and product teams to develop optimal physical layer solutions for their networking products. As such, these Panduit Pre-Configured Physical Infrastructures were designed specifically for the Cisco® UCS, Nexus and Catalyst platforms to balance scalability, power, and thermal characteristics. This approach ensures that the physical infrastructure deployments are optimized for power, cooling, and performance, lowering infrastructure risks and costs while increasing agility and sustainability.

Scalability

Panduit Pre-Configured Physical Infrastructures for Cisco® UCS, Nexus, and Catalyst platforms are designed to support various line card and equipment densities, thus enabling business growth and agility across the entire offering.

Panduit Pre-Configured Physical Infrastructures also accommodate migration from 10G to 40G/100G Ethernet with minimum investment and downtime. Making changes to a Cisco® UCS, Nexus, or Catalyst platform deployment is easy, with modular QuickNet™ Patch Panels and connectivity, enabling quick migration to higher speeds.

Optimized Power and Thermal Management

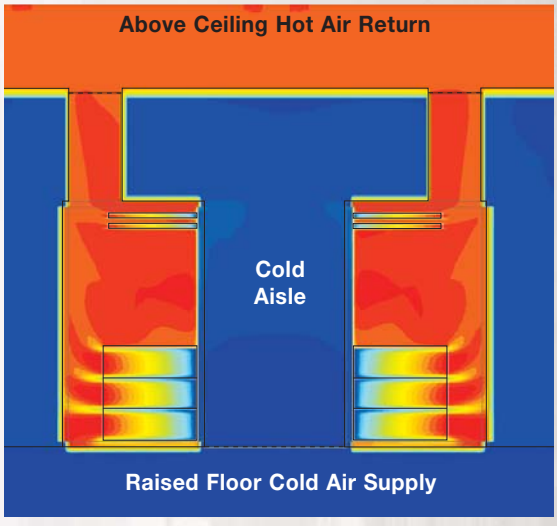
Equipment configurations ensure even power usage within an individual cabinet and across multiple cabinets, minimizing hot spots that can impact system performance and reliability. Panduit Power Outlet Units (POUs) are available separately to provide optimal capacity and redundancy across all Cisco® UCS, Nexus and Catalyst platforms.

Panduit Pre-Configured Physical Infrastructures for Cisco® UCS, Nexus, and Catalyst platforms conserve energy by establishing front-to-back airflow patterns and synergistic physical layouts to maximize power and thermal efficiencies.

Panduit Pre-Configured Physical Infrastructures for Cisco® UCS, Nexus, and Catalyst platforms offer high-density, optimum heat load data center designs for greater thermal efficiencies.

- Perforated cabinet doors and cabinet frame designs that maximize airflow area
- Optional Vertical Exhaust Systems (VES) that isolate and duct hot exhaust air to the hot air return plenum to improve hot/cold air separation, thus enabling cooling efficiency
- Vertical air dams and sealing features that minimize leak paths between hot and cold aisles, ensuring that valuable cooling goes through equipment
- Thermal load distributions within cabinets that maximize the availability of cooling airflow

When combined with additional Panduit passive, optimized thermal management solutions, Panduit Pre-Configured Physical Infrastructures for Cisco® UCS, Nexus, and Catalyst platforms can provide substantial reductions in the energy costs of a typical data center.



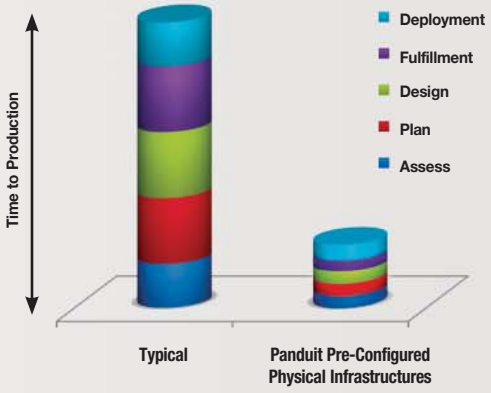
The use of Computational Fluid Dynamics by Panduit Labs provides optimum cabinet designs and energy efficiency.

The Panduit Advantage

Panduit Pre-Configured Physical Infrastructures for Cisco® UCS, Nexus, and Catalyst platforms offer the following benefits:

Reduced Time to Production up to 80%
Arrive factory designed, tested, and validated to improve:

- Assessment time up to 80%
- Planning time up to 80%
- Design time up to 80%
- Fulfillment time up to 90%
- Deployment time up to 65%



Optimized Performance – Designed specifically for the Cisco® UCS, Nexus, and Catalyst platforms to optimize power, cooling, space, speed, and performance, reducing operating risks

Sustainability – Offer enterprises an IT solution that reduces energy consumption and arrives pre-configured to reduce packaging waste.

Scalability – Designed to grow without affecting existing equipment by simplifying maintenance and upgrades, and enabling a migration path from 10G to 40G/100G.

Reduced Costs – Reduce multiple costs through rapid deployments, simplified scalability, and optimized performance.

Pre-Configured for Rapid Deployment

As the leading provider of physical infrastructure solutions, Panduit supports Cisco® UCS, Nexus, and Catalyst platforms by integrating physical to logical systems through optimized reference architectures that are mapped to industry-wide best practices. Leveraging comprehensive Smart Data Center Solutions, Advisory Services, and an eco-system of partners, Panduit helps to ensure Cisco® UCS, Nexus, and Catalyst platforms are aligned and integrated with the entire data center infrastructure for true optimization.

These Panduit physical infrastructures include all necessary systems, pre-configured within Panduit cabinets, to rapidly deploy Cisco platforms, including:

- Thermal Management
- High Speed Data Transport (HSDT) Copper and Fiber Cabling
- Cable Management
- Grounding and Bonding

Panduit Pre-Configured Physical Infrastructures arrive ready to deploy, with all thermal management,cable management, and grounding and bonding, with connectivity offered as an option.

Part of Panduit's End-To-End Smart Data Center Solutions

Panduit Pre-Configured Physical Infrastructures for Cisco® UCS, Nexus, and Catalyst platforms are part of Panduit's Smart Data Center Solutions, which embody the next wave of systems integration and risk management by aligning and harmonizing critical systems to support the delivery of secure, energy-efficient, always-on, real-time data and services.

The five key pillars of Panduit's Smart Data Center Solution include:

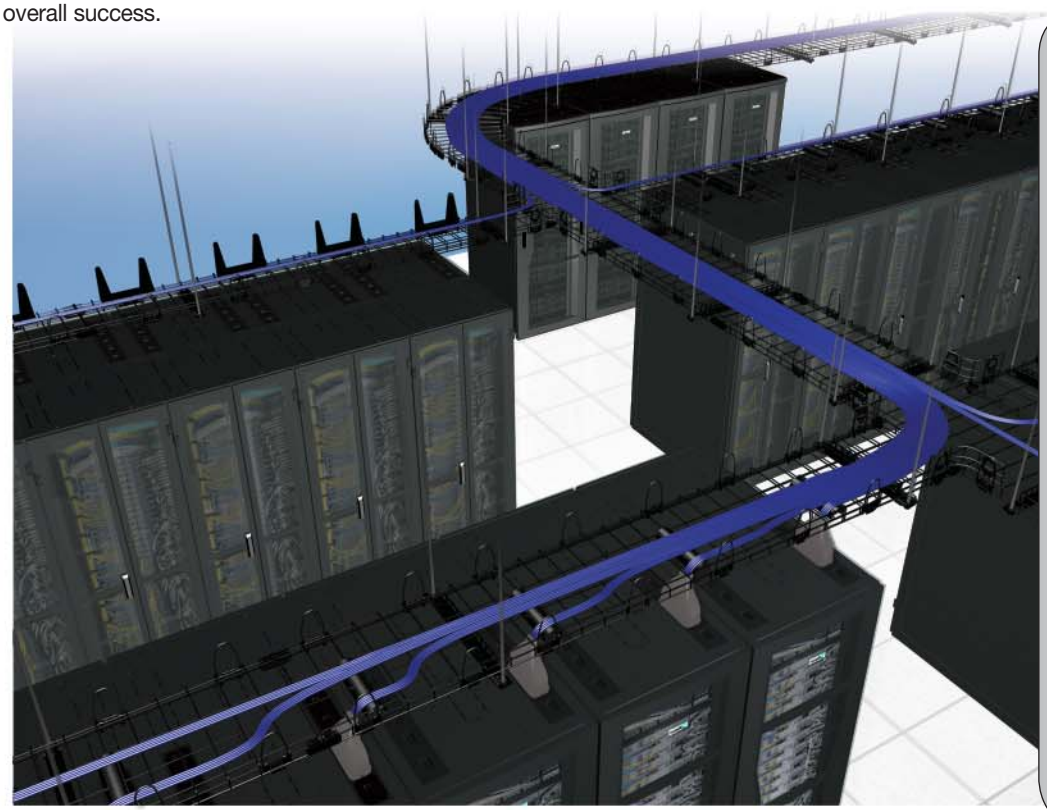
Data Center Advisory Services – offering expertise to provide a reliable and scalable physical infrastructure that delivers operational flexibility to reduce costs, improve scalability, and meet future requirements by laying a strong foundation for migration to next generation solutions, mitigating risks surrounding consolidation and virtualization, and achieving greater energy and real-estate efficiency.

Software and Intelligent Hardware Appliances – providing complete data center infrastructure management (DCIM) through monitoring and management of critical physical layer resources (including IT asset tracking, allocation, and utilization), power usage, available space for expansion, and connectivity.

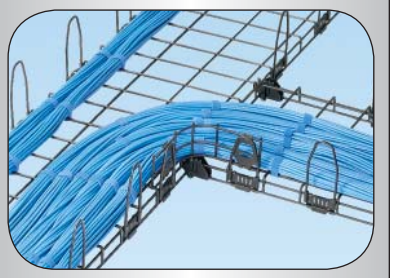
Integrated Data Center Cabinets – offering modular designs that improve cooling conservation for greater thermal management and deliver accessibility, flexibility, and effective space utilization.

High Speed Data Transport (HSDT) Copper and Fiber Cabling Systems – offering ease of deployment and proven performance to ensure availability, reliability, and scalability of mission critical systems.

Physical Infrastructure Foundation – includes all critical systems, such as pathways, zone cabling, routing, grounding, labeling and identification and more, that support a smart data center and ensure reliability, agility, and security to drive business advantages and overall success.



Panduit's full range of cable pathway systems can be integrated into Pre-Configured Physical Infrastructures to route and support fiber optic and copper cabling systems, as well as power cabling.



The versatile Panduit® Wyr-Grid® Cable Tray System is engineered to route and support high densities of data and power cables.

Panduit Pre-Configured Physical Infrastructure for the Cisco®* Nexus 7009 Switch

The Cisco® Nexus 7009 Switch enables data center stakeholders to deploy a highly scalable 10 Gigabit Ethernet (GbE) network that supports virtualization technologies for consolidation of multiple applications over a smaller number of more powerful servers and switches. All cabinet versions of Panduit pre-configured offerings for the Nexus 7009 include newly designed intake duct to optimize cooling airflow.

Panduit Pre-Configured Physical Infrastructures support the deployment of Cisco® Nexus 7009 Switch platforms with pre-assembled configurations that are offered in versions that meet typical copper and fiber I/O module provisioning schemes including:

- "Medium Fiber" for switch provisions requiring up to (4) 32-port fiber I/O Modules
- "Medium Copper" for switch provisions requiring up to (4) 48-port copper I/O Modules
- "Heavy Copper" for switch provisions requiring up to (6) 48-port copper I/O Modules

Nexus 7009 Pre-Configured Physical Infrastructure shown. (Connectivity is offered as an option.)

Part Number	Description	Std. Pkg. Qty.
CQ7009B	**"Base" Pre-Configured Physical Infrastructure for Cisco® Nexus 7009** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and intake ducting, as well as all necessary cable management, grounding jumpers and patch panels.	1
CQ7009F4	**"Medium Fiber" Pre-Configured Physical Infrastructure for Cisco® Nexus 7009** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and intake ducting, as well as all necessary cable management, grounding jumpers, patch panels, and MTP-LC Hydra cable assemblies (bulk packaged to accommodate four fiber I/O Modules).	1
CQ7009C4	**"Medium Copper" Pre-Configured Physical Infrastructure for Cisco® Nexus 7009** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and intake ducting, as well as all necessary cable management, grounding jumpers, patch panels, and copper Category 6A white patch cords (bulk packaged to accommodate four copper I/O Modules).	1
CQ7009C6	**"Heavy Copper" Pre-Configured Physical Infrastructure for Cisco® Nexus 7009** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and intake ducting, as well as all necessary cable management, grounding jumpers, patch panels, and copper Category 6A white patch cords (bulk packaged to accommodate six copper I/O Modules).	1

*Cisco® Nexus 7009 Switch not included in the part numbers above. The above diagram is assembled per the application note. Panduit Pre-Configured Physical Infrastructures are shipped on standard pallets. For applications that require shock-resistant packaging to facilitate pre-mounting of active electronics, please contact customer service.

Panduit Pre-Configured Physical Infrastructure for the Cisco®* Nexus 7010 Switch

The Cisco® Nexus 7010 Switch enables data center stakeholders to deploy a highly scalable 10 Gigabit Ethernet (GbE) network that supports virtualization technologies for consolidation of multiple applications over a smaller number of more powerful servers and switches. Panduit's Pre-Configured Physical Infrastructures support the deployment of Cisco® Nexus 7010 platforms with pre-assembled configurations that are offered in versions that meet typical copper and fiber line card provisioning schemes including:

- "Medium Fiber" for switch provisions requiring up to (4) 32-port fiber line cards
- "Medium Copper" for switch provisions requiring up to (4) 48-port copper line cards
- "Heavy Copper" for switch provisions requiring up to (6) 48-port copper line cards

Nexus 7010 Pre-Configured Physical Infrastructure shown. (Connectivity is offered as an option.)

Part Number	Description	Std. Pkg. Qty.
CQ7010B	**"Base" Pre-Configured Physical Infrastructure for Cisco® Nexus 7010** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and all necessary cable management, grounding jumpers and patch panels pre-assembled together.	1
CQ7010F4	**"Medium Fiber" Pre-Configured Physical Infrastructure for Cisco® Nexus 7010** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and all necessary cable management, grounding jumpers, patch panels, and LC-LC patch cords (bulk packaged to accommodate 4 additional fiber line cards) pre-assembled together.	1
CQ7010C4	**"Medium Copper" Pre-Configured Physical Infrastructure for Cisco® Nexus 7010** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and all necessary cable management, grounding jumpers, patch panels, and copper CAT6 white patch cords (bulk packaged to accommodate 4 additional copper line cards) pre-assembled together.	1
CQ7010C6	**"Heavy Copper" Pre-Configured Physical Infrastructure for Cisco® Nexus 7010** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and all necessary cable management, grounding jumpers, patch panels, and CAT6 white patch cords (bulk packaged to accommodate 6 additional copper line cards) pre-assembled together.	1

*Cisco® Nexus 7010 Switch not included in the part numbers above. The above diagram is assembled per the application note. Panduit Pre-Configured Physical Infrastructures are shipped on standard pallets. For applications that require shock-resistant packaging to facilitate pre-mounting of active electronics, please contact customer service.

Panduit Pre-Configured Physical Infrastructure for the Cisco®* Catalyst 6509 Switch

The Cisco® Catalyst 6509 Switch provides high port densities that are ideal for many wiring closet, distribution, and core network deployments. Panduit's Pre-Configured Physical Infrastructures support the deployment of the Cisco® Nexus 6509 switch with pre-assembled configurations that are offered in versions that meet 10 GbE density copper and fiber line card provisioning schemes, including:

- "Medium Fiber" for switch provisions requiring up to (4) 32-port fiber line cards
- "Medium Copper" for switch provisions requiring up to (4) 48-port copper line cards
- "Heavy Copper" for switch provisions requiring up to (6) 48-port copper line cards

Catalyst 6509 Pre-Configured Physical Infrastructure shown.
(Connectivity is offered as an option.)

Part Number	Description	Std. Pkg. Qty.
CQ6509B	**"Base" Pre-Configured Physical Infrastructure for Cisco® Catalyst 6509** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and all necessary cable management, grounding jumpers and patch panels pre-assembled together.	1
CQ6509F4	**"Medium Fiber" Pre-Configured Physical Infrastructure for Cisco® Catalyst 6509** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and all necessary cable management, grounding jumpers, patch panels, and LC-LC patch cords (bulk packaged to accommodate 4 additional fiber line cards) pre-assembled together.	1
CQ6509C4	**"Medium Copper" Pre-Configured Physical Infrastructure for Cisco® Catalyst 6509** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and all necessary cable management, grounding jumpers, patch panels, and copper CAT6 white patch cords (bulk packaged to accommodate 4 additional copper line cards) pre-assembled together.	1
CQ6509C6	**"Heavy Copper" Pre-Configured Physical Infrastructure for Cisco® Catalyst 6509** with Net-Access™ N-Type Cabinet, side panels, POU brackets, and all necessary cable management, grounding jumpers, patch panels, and CAT6 white patch cords (bulk packaged to accommodate 6 additional copper line cards) pre-assembled together.	1

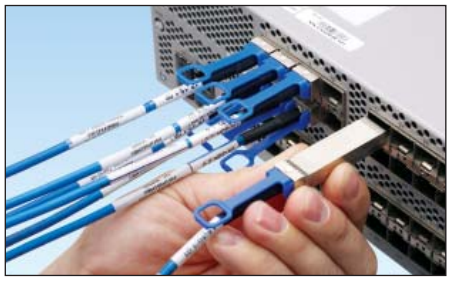
*Cisco® Catalyst 6509 Switch not included in the part numbers above. The above diagram is assembled per the application note. Panduit Pre-Configured Physical Infrastructures are shipped on standard pallets. For applications that require shock-resistant packaging to facilitate pre-mounting of active electronics, please contact customer service.

Panduit Pre-Configured Physical Infrastructure for Cisco®* Unified Computing Systems (UCS)

The Cisco® Unified Computing System (UCS) is a next-generation data center platform that unites compute, network, storage access, and virtualization into a cohesive system. Panduit's Pre-Configured Physical Infrastructures support the deployment of up to five UCS Blade Server Chassis within various cabinet footprints that optimize the physical infrastructure for the UCS server architectures. Three different cabinet widths are offered including:

- 28-inch version with Net-Access™ S-Type Cabinet for customers seeking a balance between floor space and cable management area
- 24-inch version with Net-Access™ S-Type Cabinet maximizes floor space utilization for traditional deployments on raised floors. The trade-off for the narrower width is the reduction in space for cable management, and accessibility to the serviceable items.

Cisco UCS Pre-Configured Physical Infrastructure shown.



SFP+ Cables are available as an option for Cisco UCS Deployments

Part Number	Description	Std. Pkg. Qty.
CQ5108S7B	**Pre-Configured Physical Infrastructure for UCS Base** with with 28" wide Net-Access™ S-Type Cabinet, side panels, casters, POU brackets, and all necessary cable management, grounding jumpers and patch panels pre-assembled together.	1
CQ5108S6B	**Pre-Configured Physical Infrastructure for UCS Base** with 24" wide Net-Access™ S-Type Cabinet, side panels, casters, POU brackets, and all necessary cable management, grounding jumpers and patch panels pre-assembled together.	1

*Cisco® UCS Blade Servers not included in the part numbers above. The above diagram is assembled per the application note. Panduit Pre-Configured Physical Infrastructures are shipped on standard pallets. For applications that require shock-resistant packaging to facilitate pre-mounting of active electronics, please contact customer service.

Panduit® PanView iQ™ (PViQ™) Networked Environmental Power Outlet Units (POUs)

Panduit's PViQ™ System Hardware supports power and environmental management applications through intelligent power outlet units (POUs) that safely and efficiently manage and distribute power to multiple devices through a single power connector to enhance scalability of network build outs.

Through integration with the Physical Infrastructure Management (PIM™) Software Platform, these POUs transmit power and temperature readings in racks and cabinets to the PIM™ Power Module to allow:

- Automated documentation and visualization of power utilization
- Recognition and notification of faults or power disruptions
- Environmental monitoring measures in-cabinet temperature

Power Outlet Units (POUs)

Panduit recommends the POUs on the following page for the pre-configured offerings. Actual requirements will be based on regional preferences and receptacle requirements.

Cisco® Nexus 7009 and Nexus 7010 Power

Part Number	Description	Std. Pkg. Qty.
QN1B1P3BN30P1*	Vertical power strip 30 A, 208 V, WYE, 24 IEC C-13 and 6 IEC C-19 receptacles, with red LCD current monitor, RJ-45 Ethernet port with two RJ12 remote environmental ports and remote display port, three 20 A double pole magnetic breaker on-off switch with integral switch guard and 10' power cord with NEMA L21-30P twist lock plug. UL and c-UL Listed. Dimensions: 66.3"H x 2.0"W x 2.0"D (1683mm x 51mm x 51mm)	1
QN1D2Q0BA30P1*	Vertical power strip 16 A, 230/400V, WYE, 24 IEC C-13 and 6 IEC C-19 receptacles, with red LCD current monitor, RJ-45 Ethernet port with two RJ12 remote environmental ports and remote display port, 3m power cord with IEC 60309 - 3P+ N+ E, 16A pin in sleeve connector. Complies with IEC 60950-1, EN 55022, EN 55024 and CE Marked. Dimensions: 66.3"H x 2.0"W x 2.25"D (1683mm x 51mm x 58mm)	1

*Use power supply N7K-AC-6.0KW.

Cisco® Catalyst 6509 Power

Part Number	Description	Std. Pkg. Qty.
QN1B1P3BN30P1	Vertical power strip 30 A, 208 V, WYE, 24 IEC C-13 and 6 IEC C-19 receptacles, RJ-45 Ethernet port with red LED current monitor, RJ-45 Ethernet port with two RJ12 remote environmental ports and remote display port, three 20 A double pole magnetic breaker on-off switch with integral switch guard and 10' power cord with NEMA L21-30P twist lock plug. UL and c-UL Listed. Dimensions: 66.3"H x 2.0"W x 2.0"D (1683mm x 51mm x 51mm).	1
QZ1B1N3BN30P1	Vertical power strip 30 A, 208 V, Delta, 24 IEC C-13 and 6 IEC C-19 receptacles, RJ-45 Ethernet port with red LED current monitor, three 20 A double pole magnetic breaker on-off switch with integral switch guard and 10' power cord with NEMA L15-30P twist lock plug. UL and c-UL Listed. Dimensions: 66.3"H x 2.0"W x 2.0"D (1683mm x 51mm x 51mm).	1
QN1B1K0BA36AQ1	Vertical power strip 20 A, 230/400 V, WYE, 24 IEC C-13 and 6 IEC C-19 receptacles, RJ-45 Ethernet port with red LED current monitor, RJ-45 Ethernet port with two RJ12 remote environmental ports and remote display port, and 10' power cord with NEMA L22-20P twist lock plug. UL and c-UL Listed. Dimensions: 66.3"H x 2.0"W x 2.0"D (1683mm x 51mm x 51mm).	1
QN1D2Q0BA30P1	Vertical power strip 16 A, 230/400 V, WYE, 24 IEC C-13 and 6 IEC C-19 receptacles, RJ-45 Ethernet port with red LED current Monitor, RJ-45 Ethernet port with two RJ12 remote environmental ports and remote display port, and 10' power cord with IEC 60309 309 3P + N + E, pin in sleeve connector. Complies with IEC 60950-1, EN 55022, EN 55024 and CE Marked. Dimensions: 66.3"H x 2.0"W x 2.0"D (1683mm x 51mm x 51mm).	1

Cisco® UCS Power (3 chassis + 2 fabric extenders)

Part Number	Description	Std. Pkg. Qty.
QN1B2G6BN24R1	Vertical power strip 60 A, 208 V, Delta, 12 IEC C-13 and 12 IEC C-19 receptacles, RJ-45 Ethernet port with red LED current monitor, RJ-45 Ethernet port with two RJ12 remote environmental ports and remote display port, six 20 A double pole magnetic breaker on-off switch with integral switch guard and 10' power cord with IEC 60309 - 3P/4W pin in sleeve connector, watertight. UL and c-UL Listed. Dimensions: 66.3"H x 2.3"W x 3.5"D (1683mm x 58mm x 89mm).	1
QN1D2P3BN30P1	Vertical power strip 32 A, 230/400 V WYE, 24 IEC C-13 and 6 IEC C-19 receptacles, RJ-45 Ethernet port with red LED current monitor, RJ-45 Ethernet port with two RJ12 remote environmental ports and remote display port, six 16 A single pole magnetic breaker on-off switch with integral switch guard and 10' power cord with IEC 60309 309 3P + N + E, pin in sleeve connector. Complies with IEC 60950-1, EN 55022, EN 55024 and CE Marked. Dimensions: 66.3"H x 2.0"W x 2.0"D (1683mm x 51mm x 51mm).	1

Thermal Management Options for Pre-Configured Physical Infrastructures

Panduit offers a range of passive thermal management options that prevent mixing of cold and hot air, optimizing performance of high-density, high-heat load equipment applications, while reducing cooling energy costs up to 42%.

Vertical Exhaust System (VES)

The Panduit Vertical Exhaust System consists of an adjustable duct that can be installed on the tops of cabinets to segregate hot exhaust air from cool air, routing hot exhaust directly into the return plenum, delivering superior cooling efficiency that results in lower overall energy consumption. Benefits include:

- Optimized cooling management for high-density server deployments and heat loads
- Maximized return temperatures to the CRAH unit for increased efficiency and lower energy consumption
- Increased supply air temperature to achieve operational savings
- Cost effective offering that enhances data center agility and scalability

Vertical Exhaust System (VES) used with pre-configured cabinet

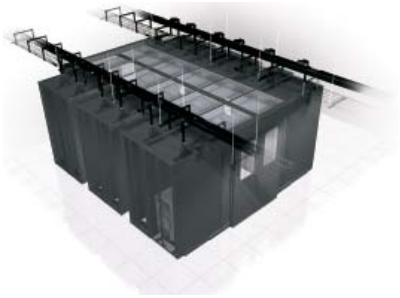
Net-Contain™ Universal Aisle Containment Systems

The Net-Contain™ Universal Aisle Containment System allows users to reclaim underutilized cooling capacity, reduce energy expense, and reduce OpEx by retrofitting their existing data center with a versatile containment system. The system includes an independent support structure, sliding doors, vertical blanking panels, and roof structure. This flexible offering can be configured in Hot Aisle and Cold Aisle containment and allows the addition of cabinets of varying sizes and design as needed, reducing deployment time and capital investment.

Net-Contain™ Universal Aisle Containment System

Net-Contain™ Cold and Hot Aisle Containment Systems

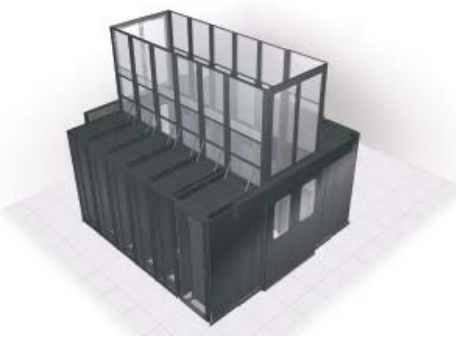
The Net-Contain™ Cold Aisle Containment System (CAC) creates a structure including end-of-row doors and ceiling panels that enclose the cold aisle between rows of Panduit cabinets to prevent mixing of cold and hot air, optimizing cool air delivery. The CAC system provides consistent inlet air temperature to the front of cabinets to support high-density server deployments and heat loads.



Net-Contain™ Cold Aisle Containment System

The Net-Contain™ Hot Aisle Containment System (HAC) creates a structure including end-of-row doors and vertical panels that exhaust the hot air between rows of Panduit cabinets to segregate cold and hot air streams to and from equipment. The goal of a HAC system is to capture all of the cabinet exhaust air and return it to the cooling units. The rest of the room outside of the HAC becomes a cold room with ambient air temperature close to the supply air temperature. Benefits include:

- Seamless integration of all Pre-Configured Physical Infrastructures into pods, offering consistent and predictable thermal performance and scalability



Net-Contain™ Hot Aisle Containment System

Panduit® Net-Contain™ Universal, Cold, and Hot Aisle Containment Systems integrates with Pre-Configured Physical Infrastructures, HSDT Cabling and Cable Pathway Systems to create complete data center physical infrastructures

Real-World Solutions

With a proven reputation for excellence and innovation, Panduit and our partners work with you to overcome challenges and implement real-world solutions that create a competitive business advantage. Panduit offers the broadest range of solutions, from data centers and intelligent buildings to manufacturing operations, to help you build a ***smarter, unified business foundation.***

Technology Leadership

Panduit develops innovative physical infrastructure solutions that meet the rapidly changing needs of our clients, from hardware and software to advisory services. This commitment is supported by investment in advanced research, solutions-focused product development, world-class manufacturing, and collaboration with customers at the forefront of technology.

Partner Ecosystem

Our best-in-class partner ecosystem offers a comprehensive portfolio of services that span the project lifecycle, from planning and design to delivery, deployment, maintenance, and operation. Panduit business partners – distributors, and certified architects, consultants, engineers, designers, system integrators, and contractors – are qualified to help you achieve your objectives and realize predictable and measurable results.

Strategic Alliances

Panduit cultivates long-term strategic alliances with industry leaders, including Cisco Systems, EMC, IBM, and Rockwell Automation, to develop, optimize, and validate solutions for our customers. This investment in people and resources helps solve our customers' greatest business challenges.

Global Business Commitment

Panduit is committed to delivering a consistently high level of quality and service the world over. With a presence in more than 100 countries, local Panduit sales representatives and technical specialists offer guidance and support that bring value to your business. Our global supply chain, which includes manufacturing, customer service, logistics, and distribution partners, provides prompt response to your inquiries and streamlines delivery to any worldwide destination.

Sustainability

With a commitment to environmental sustainability, Panduit develops and implements solutions that protect, replenish, and restore the world in which we live. This commitment is demonstrated by Panduit's LEED Gold certified World Headquarters, leveraging the Unified Physical Infrastructure℠ approach to enable convergence of critical building systems to drive energy efficiency and ongoing operational improvement.

Panduit Corp.
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